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THE BEST VARIETIES OF GRAIN

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DOMINION OF CANADA
DEPARTMENT OF AGRICULTURE
PAMPHLET No. 11—NEW SERIES

THE EXPERIMENTAL FARMS BRANCH

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Published by Direction of the Hon. W. R. MOTHERWELL, Minister of Agriculture,
Ottawa, 1922



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THE BEST VARIETIES OF GRAIN

In order to reap the largest and most profitable crops, it is not only necessary to maintain the fertility and tilth of the soil, by the use of a judicious rotation and the addition of sufficient manure or fertilizers, but care must be taken to sow thoroughly clean seed derived from varieties best adapted to the soil and climatic conditions of each farm. The present pamphlet deals with the choice of varieties and presents conclusions drawn from the tests which have been conducted on the various Dominion Experimental Farms and Stations for many years.

As a rule it is not advisable for farmers to experiment with new sorts which are recommended by the vendors only; but those grain growers who have a special liking for experimental work will find the testing of new kinds a very interesting, though expensive, occupation. For most people, it is better to leave to government institutions all preliminary experiments, and not to grow on their own farms any varieties that have not already been shown to be good. There will always be plenty of scope, among recommended sorts, for very interesting comparative trials, which may be made with little or no loss of either time or money.

It is not the policy of the Dominion Experimental Farms to advise the cultivation of new varieties of grain until they have been carefully tested in, at least, some parts of Canada, though, of course, it is impossible to withhold new sorts from the public long enough to try them in all sections of our great country. Furthermore, new varieties, whether originated at Ottawa or elsewhere, are not recommended unless they have shown some point of superiority over the older and better known sorts. Novelty ought to be recognized as a disadvantage unless accompanied by some definite and significant gain.

In order that grain growers may be able to make an intelligent choice among the varieties recommended, brief descriptions of them are here given. Other very good sorts, almost or quite equal in value to some of those which are recommended, could have been added to this list, but it is manifestly undesirable to mention the names of an unnecessarily large number of varieties.

It should be explained that all those varieties to which Ottawa numbers are attached are new cross-bred sorts or selections produced by the Dominion Cerealists at the Central Experimental Farm, Ottawa.

DESCRIPTIONS OF LEADING VARIETIES

Winter Wheat

Dawson's Golden Chaff.—Very productive, beardless, straw stiff, grains "white" and inclined to be soft, excellent for pastry, but not very desirable for breadmaking. Usually hardy where there is a reasonable snowfall.

Egyptian Amber.—Almost equal to Dawson's Golden Chaff in field characters and superior for breadmaking. Bearded, grains red.

Turkey Red.—In commerce, often called Kansas Red or Alberta Red; practically identical with Kharkov (the latter is, however, supposed to be more productive). Kanred is a new and superior selection. Grains red and usually rather hard. Heads bearded, straw moderately stiff. The best winter wheat for breadmaking purposes. This variety is adapted to rather dry districts and does not usually do so well where the snowfall is heavy.

Spring Wheat

Red Fife Group—Late-Ripening Varieties

Red Fife.—Formerly the standard variety of Canada. Beardless, straw rather long and fairly stiff, kernels red and usually hard. Gives a good yield under a variety of conditions, but is too late in ripening for the greater part of Canada. This wheat is in the highest class for milling and breadmaking. The selected strain grown on the Dominion Experimental Farms, *Red Fife Ottawa 17*, is exceptionally pure but not otherwise materially different from the ordinary stock.

White Fife.—Practically identical with Red Fife but has yellowish instead of reddish bran. The popular ideas about the superior adaptability of White Fife to certain special field conditions are incorrect, as are also those about its inferiority to Red Fife for breadmaking. This variety should not be sown unless the farmer can secure an extra high price for a "white" wheat. As a rule "red" wheats sell better in Canada.

White Russian.—Ordinary, commercial White Russian ripens with Red Fife, though some selected strains ripen earlier. White Russian differs from Red Fife chiefly in having longer heads, and larger and softer kernels, which produce flour of poor breadmaking quality, though very suitable for biscuits and pastry. This variety often gives excellent crops, especially on light soils in Eastern Canada. It suffers very badly from rust in some sections.

Marquis Group—Early-Ripening Varieties

The wheats in this group are extremely productive, generally surpassing those in the Red Fife group, and maturing usually from 3 to 12 days earlier.

Early Red Fife, Ottawa 16.—This is a pure line selection from the ordinary Red Fife, from which it differs in some respects: it is distinctly earlier in ripening, has larger kernels and somewhat blunt (instead of pointed) heads, and is, in some climates, rather more susceptible to rust than the parent sort. Its milling and baking qualities are the same as those of Red Fife. It is one of the best sorts to grow in rather dry districts in central and western Canada where an early-ripening wheat is needed and where rust is not much feared. It does very well in the eastern provinces also, usually outyielding ordinary Red Fife.

Huron, Ottawa 3.—Straw stiff and rather long, heads bearded, kernels rather long, dark red, hard. Makes good flour and bread of a somewhat yellowish colour; the bread being usually less light than that made from Marquis or Red Fife. Very productive under a variety of conditions. One of the best wheats to grow in districts where the highest baking quality and extreme earliness are not required. *Preston* (bearded) and *Stanley* and *Percy* (beardless) are similar in most respects to Huron. On the whole, they are inferior to this latter.

Kitchener.—This was discovered in a field of Marquis, which it resembles. It is very productive but ripens a day or two later than Marquis and is of inferior quality for baking purposes.

Marquis, Ottawa 15.—The leading wheat of Canada; straw stiff and of medium length; heads essentially beardless but carrying a few short awns at the tip. The kernels do not shell out before harvesting. This variety is therefore a little harder to thresh than other sorts. The kernels are rather short, dark red and hard, yielding excellent flour. Very productive, especially on rich soils and in rather dry climates; not particularly desirable where the climate is moist.

Red Bobs.—A selection, having red kernels, obtained from the white, Australian variety Bobs. Red Bobs has given excellent results at Rosthern, Sask., and in some

other districts, but as a rule it has proved inferior to Marquis. The chief reason for this inferiority is that Red Bobs is more susceptible to rust than Marquis. The two varieties ripen at about the same time in warm seasons, but in cool seasons Red Bobs is distinctly earlier. In baking qualities there is little or no difference between these two wheats.

Ruby Group—Very Early-Ripening Varieties

These varieties usually ripen from three to twelve days earlier than those in the Marquis group. As a rule, the latter are more productive.

Pioneer, Ottawa 195.—A high-yielding variety with excellent baking qualities. Owing, however, to its bearded character, it cannot compete successfully with Ruby.

Ruby, Ottawa 623.—A beardless wheat, ripening considerably earlier than any member of the Marquis group. Kernels hard, red, yielding flour of excellent colour and high quality. Straw of very fair length and strength. The grain threshes out easily. Very valuable for localities where there is at least a moderate rainfall and where Marquis ripens too late.

Crown Ottawa 353, Duchess Ottawa 933, Garnet Ottawa 652, and Reward Ottawa 928 are new varieties belonging to this group. They are of considerable promise and may prove serious rivals of Ruby. They are not yet available (1922) for distribution to the public.

Prelude Group—Extremely Early in Maturing

Prelude, Ottawa 135.—This is the earliest wheat obtainable commercially in Canada. It ripens usually from five to eight days before Ruby. Prelude should not be expected to give as high a yield as later-maturing sorts in seasons favourable to the latter; but it gives very good crops under reasonable conditions. Its kernels are hard, red, plump and extremely heavy. The heads are short, downy and bearded, and the straw is short but stands up well. As this wheat shells out readily it should always be cut on the green side. Flour from this variety is of very high baking strength but not pale enough to be given the highest rank for colour. This wheat is specially recommended for districts where there is a tendency towards the production of too long straw and where the greatest possible earliness is essential.

Forward, Ottawa 136.—This is a sport from Prelude. It differs from the parent sort chiefly in being beardless. It ripens two or three days later than Prelude. Flour made from it shows high baking strength and very fair colour. This variety is not yet (1922) available for general distribution.

Durum Group—The so-called "Macaroni" Wheats

It is necessary to mention these wheats as a separate group because they are so different from the ordinary varieties; the large size and excessive hardness of their kernels rendering them very unpopular with most Canadian millers. While it is true that some durum varieties are used for the manufacture of macaroni, to designate the whole group as "macaroni" wheats gives an incorrect impression. Some of these varieties are excellent for breadmaking while others are very poor. The great, outstanding quality of the durum wheats, which will ultimately make them important in some parts of Canada, is their ability to resist drought and rust better than the common wheats. Most of the durum varieties are bearded, late in ripening and not very strong in the straw.

Kubanka, Ottawa 37.—A pure line selection from Kubanka (Washington No. 5639). A bearded variety with smooth chaff of a slight reddish tinge. Kernels large, yellow and very hard. Of very high quality for breadmaking though the colour of the flour is decidedly yellowish.

Goose or Wild Goose is a productive variety of inferior breadmaking qualities.

Oats

Main Crop Varieties

Abundance (Garton's).—This well-known variety is popular with some farmers. A careful comparison, however, with the best standard sorts shows that Abundance has no outstanding qualities such as would entitle it to be placed quite in the front rank. The kernels being relatively short and plump, this oat is more attractive in appearance to some people than Banner or Victory.

Banner, Ottawa 49.—This is one of the best strains of the old standard kind, *Banner* or *American Banner*. This variety is the most popular and certainly one of the very best. The straw is of good length and fair strength. The kernels are long. A very productive oat, succeeding best on rather heavy soil.

Gold Rain or Golden Rain.—An excellent, very productive Swedish sort, slightly earlier than Banner in ripening, and having as a rule a higher weight per bushel than any other common variety. In strength of straw it is about the same as other good sorts. The hull of these oats is of a decided yellow colour which is considered an objection by some people.

Leader.—A new variety which by clever advertising has been given undue prominence. It is not uniform in type, some of the heads being compact (sided) and others spreading in habit. This oat has the peculiarity of having sometimes (though very rarely) four kernels in a spikelet. This fourth kernel is present so seldom and is of such extremely small dimensions that it is of no practical value whatever. Even the third kernel in a spikelet is too small to count for much in the total yield. In view of the ridiculous claims made for the Leader oat, one cannot but feel that definite results from thorough tests at experiment stations should be awaited before purchasing seed. It is quite possible that one or more good varieties may be isolated from the Leader mixture.

Ligowo.—An old sort which is now less cultivated than formerly. It is usually a little below Banner in productiveness but somewhat earlier in ripening. It very commonly carries awns but, when closely threshed, it makes a good oat for exhibition purposes on account of being rather short and plump, like Abundance.

O.A.C. No. 72.—A pure line strain of *Siberian* introduced under a number by the Ontario Agricultural College, has become popular in Ontario. It is a very productive variety but rather late in ripening. The straw is longer and a trifle weaker than that of Banner, Ottawa 49, but, especially on light soils and in districts where the season is long, the O.A.C. No. 72 is one of the very best sorts.

Victory (also called *Seger* and *Conqueror*).—A Swedish variety which closely resembles Banner and is perhaps equally desirable.

Very Early Varieties

Alaska.—One of the best of the very early-maturing sorts. It has an advantage over Daubeney in the fact that the kernels of Alaska are plumper than those of the other variety. It has good straw of fair length and gives an excellent yield, considering how early it ripens.

Daubeney, Ottawa 47.—A pure line selection from ordinary, commercial Daubeney. This oat generally produces straw of satisfactory length and strength. The kernels are long and thin but the percentage of hull is not high. Daubeney ripens at about the same time as Alaska and generally gives a very good yield.

Orloff.—This is a trade name given to the variety originally known by the misleading name *Sixty-day*. Orloff is earlier than Daubeney and Alaska but is inferior to those varieties.

Hulless Varieties

Liberty, Ottawa 480.—An early-ripening sort, producing straw of good length and strength and giving a very fair yield. Not equal in productiveness, however, to the best oats of ordinary type. As it gives up its hull when threshed, this oat can readily be converted into oatmeal of remarkably good quality for human consumption and very valuable for feeding to animals for which ordinary ground oats are too coarse.

Laurel, Ottawa 477.—A new, hulless variety not yet introduced (1922). Not quite so early in ripening as Liberty, but producing larger kernels. A very promising sort.

Barley

Six-row Varieties

Albert, Ottawa 54.—An extremely early sort, valuable wherever the maximum of earliness is essential. It gives a fair yield.

Bearer, Ottawa 475.—A new, cross-bred variety, not yet introduced (1922). Exceptionally productive in some climates.

Chinese, Ottawa 60.—This is a new pure line selection from the commercial barley from which Manchurian Ottawa 50 was obtained. It is supposed to be of Asiatic origin. This new variety has proved to be the most productive of all those which have been very thoroughly tested at Ottawa. It is recommended as superior to Manchurian and O.A.C. No. 21 which it resembles.

Manchurian, Ottawa 50.—This variety has a very good record, but as it has proved somewhat inferior to Chinese Ottawa 60 the latter sort is now recommended as a substitute.

Ontario Agricultural College No. 21.—This also is a pure line selection from barley of supposed Asiatic origin. It is a very good variety and highly popular. At Ottawa, it has not given quite so large a yield as Chinese Ottawa 60 but it has shown slight superiority in strength of straw.

Two-Row Varieties

Charlottetown No. 80.—Obtained, by the Superintendent of the Experimental Station at Charlottetown, P.E.I., by selection from the local barley known as Old Island Two-row. It belongs to the Chevalier group. It is productive and high in weight per bushel, and has the advantage, in some climates, of dropping most of its awns before harvest. It ripens about five to seven days later than the common, six-row sorts.

Duckbill, Ottawa 57.—A pure line selection from commercial Duckbill, which is one of the most popular two-row sorts. Under careful test, however, this variety has not shown any remarkable productiveness. Ripens about with Charlottetown No. 80.

Gold is a very prolific variety of Swedish origin. It has, however, the great disadvantage of possessing rather weak and very short straw. It ripens rather late.

Hannchen is of European origin and is closely related to Gold. Hannchen has given very good results in some parts of Saskatchewan.

Hooded Barleys

Beardless, or, more properly, hooded barleys are attractive because of the absence of awns. Most of them are also early in ripening.

Feeder, Ottawa 561.—This new sort has not yet been introduced (1922). At Ottawa it has given a higher yield and higher weight per bushel than Success, but it is not so early in ripening.

Success is one of the best known sorts. It ripens extremely early, has fair length and strength of straw and gives a medium yield of grain which is usually quite low in weight per bushel.

Hulless Barleys

These varieties, which thresh out free from hull, are very desirable for feeding to animals which cannot thrive on ordinary barley.

Himalayan, Ottawa 59.—A pure line selection from the common sort to which the strange name Guy Mayle, a corruption of Guymalaye, has been applied. Himalayan is productive and early in ripening but its straw is not usually satisfactory, being too short and weak.

Hulless White is a hooded, hulless sort obtainable in commerce. It ripens very early and sometimes gives satisfactory crops.

Hulless Black is a bearded, hulless sort of a dark colour. Obtainable in commerce but not to be recommended.

Junior, Ottawa 471.—A new cross-bred sort not yet distributed (1922). It gives a good crop under favourable conditions and is very early. The straw is strong but too short, as a rule.

Spring Rye

There are different strains of spring rye, but most of the seed produced in Canada belongs to essentially the same variety and has no particular distinguishing name.

Winter Rye

There are several different sorts of winter rye differing in hardiness, in size of kernel, etc.; but it is not always possible to obtain a desired variety in pure condition on account of the ease with which natural crossing occurs. In Canada, hardiness is the most important point to be considered. Farmers purchasing seed would do well to secure it from a crop grown as far north as possible.

North Dakota No. 959 is one of the hardiest strains.

Rosen is a popular sort where the winter is not extremely severe.

Emmer and Spelt

There are several distinct types of these grains, of varying degrees of coarseness. The best emmers are superior to the best spelts.

Common Emmer is the best of the old varieties. It is often sold under the corrupted name "Speltz". It is not a kind of spelt. This variety has been too much advertised. It may be of value in some very dry districts, but is unprofitable in most parts of Canada.

Early Emmer, Ottawa 44.—This new variety comes from a cross between Common Emmer and a kind of durum wheat. It is early in ripening and productive, and has strong straw. In threshing, many of the kernels come out of the hull, but enough of them retain the hull to make it impossible to classify this variety as a wheat. This new emmer has not yet been introduced (1922). It should be tried in dry districts as it is very promising.

Field Peas

Only field peas are mentioned here, that is to say, varieties which are grown for the sake of the ripe seed. The colour of field peas may be yellowish, green, blue or brown. The yellowish type is usually the most popular.

Alaska.—A pale greenish-blue pea of about medium size. Ripens early. Not yet very thoroughly tested.

Arthur, Ottawa 18.—A productive variety of rather early-ripening habit. The flowers are borne chiefly in a bunch at the tip of the main stalk. The straw is very coarse. The peas are yellowish and of medium size.

Chancellor, Ottawa 26.—A small yellowish pea which may be of value on account of its exceptional earliness.

Early Blue, Ottawa 21.—An extremely early sort. The peas are greenish-blue in colour. Not yet very thoroughly tested, but quite promising.

Early White.—A small, yellowish pea which ripens early. New and not yet very thoroughly tested.

Golden Vine.—An old, standard pea of yellowish colour and very small size. Not so liable to split in threshing as the larger kinds.

Mackay, Ottawa 25.—A remarkably productive variety, but rather late in ripening and hence unsuitable for some sections of Canada. The peas are yellowish, of medium size, and have a black eye.

Prussian Blue.—A very productive blue pea of medium size. Late in ripening.

Solo.—A very productive Swedish sort of brownish colour and irregular shape. Late in ripening.

Field Beans

The term "field beans" is used to designate beans grown for the sake of the ripe seed rather than for the unripe pod. It is obvious that a sharp line of distinction cannot always be drawn between the two types, because one variety may be grown for both purposes. For most parts of Canada, rather early-ripening beans are required. The latest-ripening sorts are not mentioned in the following list. Other things being equal, white varieties should usually be grown, as these are generally preferred by the public.

Navy, Ottawa 711.—A pure line selection from the well-known commercial sort. Navy. The selection does not differ in any striking way from the parent variety. This is one of the very best sorts of white beans.

Norwegian, Ottawa 710.—This is a yellowish-brown bean of medium size and elongated shape, a pure line selection from a variety received from Norway. It is not claimed that this is very different from similar brown beans grown under other names. It is a very early-maturing sort and, considering its earliness, remarkably productive. At Ottawa, when sown towards the end of May, it usually ripens in about 90 days. This variety is recommended as perhaps the best for districts where the summer season is very short.

White Pea.—A white bean smaller than Navy but otherwise resembling that variety.

Yellow Six Weeks.—A productive and very early variety, almost as early as Norwegian. Used by some people both in the green state and when ripe.

Flax for Seed

North Dakota Resistant No. 52.—This appears to be the most productive of the North Dakota selections. It is somewhat like Premost and usually gives good results in central Canada.

Novelty, Ottawa 53.—A very productive selection from a variety supposed to be of Russian origin. One of the most prolific sorts yet discovered. The seeds are larger and paler in colour than those of the most common types. Novelty produces plants of moderate length and is not expected to be very good for fibre purposes.

Premost or Primost.—A Minnesota selection which is productive and popular, especially in central and western Canada. The seeds are smaller and darker in colour than those of Novelty.

Flax for Fibre

Longstem, Ottawa 52.—This selection produces plants of quite unusual length, and ranks very high as a variety for the production of fibre. It does not give a very large crop of seed.

Kostroma is a fairly uniform, commercial flax which has been found very good for fibre production.

Buckwheat

Buckwheat is a suitable crop for light soils in rather cool and moist climates. It will not do well if hot, dry weather occurs.

Rye buckwheat is certainly one of the most productive varieties. Indeed it appears to surpass all others in yield. It also gives a good growth of plants and is, therefore, a satisfactory sort for smothering weeds and for ploughing under.

Silverhull is popular on account of its bright appearance, and its superior qualities for flour-making.

VARIETIES RECOMMENDED BY THE DOMINION CEREALIST

The names are arranged in alphabetical order, except that varieties of minor importance, for the province in question, have their names at the end of the list and enclosed in brackets. A careful study of the descriptions given in this pamphlet should be made before deciding what varieties to sow. For further information it is suggested that the superintendent of the nearest Experimental Farm be communicated with.

Maritime Provinces

Spring wheat.—Early Red Fife Ottawa 16, Huron Ottawa 3, (Marquis Ottawa 15).

Oats.—Banner Ottawa 49, Gold Rain, Victory, (Liberty Ottawa 480, hullless).

Barley.—Charlottetown No. 80, Chinese Ottawa 60, O.A.C. No. 21.

Field Peas.—Arthur Ottawa 18, Mackay Ottawa 25, (Golden Vine, Prussian Blue, Solo).

Field Beans.—Navy Ottawa 711, Norwegian Ottawa 710, Yellow Six Weeks.

Buckwheat.—Rye, Silverhull.

Flax for Fibre.—Longstem Ottawa 52, (Kostroma).

Quebec

Spring Wheat.—Early Red Fife Ottawa 16, Huron Ottawa 3, Marquis Ottawa 15, Ruby Ottawa 623, (Prelude Ottawa 135).

Oats.—Alaska (very early) Banner Ottawa 49, Gold Rain, Victory, (Liberty Ottawa 480, hulless).

Barley.—Chinese Ottawa 60, O.A.C. No. 21, (Charlottetown No. 80).

Field Peas.—Arthur Ottawa 18, Mackay Ottawa 25, (Golden Vine).

Field Beans.—Navy Ottawa 711, Norwegian Ottawa 710, Yellow Six Weeks.

Buckwheat.—Rye, Silverhull.

Flax for Fibre.—Longstem Ottawa 52, (Kostroma).

Ontario

Winter Wheat.—Dawson's Golden Chaff, Egyptian Amber.

Spring Wheat.—Early Red Fife Ottawa 16, Huron Ottawa 3, Marquis Ottawa 15, Ruby Ottawa 623, (Goose, Kubanka Ottawa 37).

Oats.—Alaska (very early), Banner Ottawa 49, Gold Rain, O.A.C. No. 72, Victory, (Liberty Ottawa 480, hulless).

Barley.—Chinese Ottawa 60, O.A.C. No. 21, (Charlottetown No. 80).

Field Peas.—Arthur Ottawa 18, Mackay Ottawa 25, (Golden Vine, Prussian Blue, Solo).

Field Beans.—Navy Ottawa 711, Norwegian Ottawa 710, White Pea, Yellow Six Weeks.

Buckwheat.—Rye, Silverhull.

Flax for Fibre.—Longstem Ottawa 52, (Kostroma).

Manitoba

Spring Wheat.—Marquis Ottawa 15, Red Fife Ottawa 17, Ruby Ottawa 623, (Kubanka Ottawa 37, Prelude Ottawa 135).

Oats.—Alaska (very early), Banner Ottawa 49, Gold Rain, O.A.C. No. 72, Victory, (Liberty Ottawa 480, hulless).

Barley.—Chinese Ottawa 60, O.A.C. No. 21, (Himalayan Ottawa 59 hulless).

Field Peas.—Arthur Ottawa 18, Mackay Ottawa 25, (Golden Vine, Prussian Blue, Solo).

Field Beans.—Norwegian Ottawa 710, Yellow Six Weeks.

Flax for Seed.—North Dakota Resistant No. 52, Novelty Ottawa 53, Premost.

Saskatchewan

Spring Wheat.—Early Red Fife Ottawa 16, Marquis Ottawa 15, Red Fife Ottawa 17, Ruby Ottawa 623, (Kubanka Ottawa 37, Prelude Ottawa 135).

Oats.—Alaska (very early), Banner Ottawa 49, Gold Rain, Victory, (Liberty Ottawa 480, hulless).

Barley.—Chinese Ottawa 60, O.A.C. No. 21, (Albert Ottawa 54 very early, Charlottetown No. 80 late, Himalayan Ottawa 59 hulless).

Field Peas.—Arthur Ottawa 18, Mackay Ottawa 25, (Golden Vine).

Field Beans.—Norwegian Ottawa 710, Yellow Six Weeks.

Flax for Seed.—North Dakota Resistant No. 52, Novelty Ottawa 53, Premost.

Alberta

Winter Wheat.—Kharkov, Turkey Red.

Spring Wheat.—Early Red Fife Ottawa 16, Huron Ottawa 3, Marquis Ottawa 15, Red Fife Ottawa 17, Ruby Ottawa 623, (Kubanka Ottawa 37, Prelude Ottawa 135).

Oats.—Alaska (very early), Banner Ottawa 49, Gold Rain, Victory, (Liberty Ottawa 480, hullless).

Barley.—Chinese Ottawa 60, O.A.C. No. 21, (Albert Ottawa 54 very early, Charlottetown No. 80 late, Himalayan Ottawa 59 hullless).

Field Peas.—Arthur Ottawa 18, Mackay Ottawa 25, (Golden Vine).

Field Beans.—Norwegian Ottawa 710, Yellow Six Weeks.

Flax for Seed.—North Dakota Resistant No. 52, Novelty Ottawa 53, Premost.

British Columbia

In this province the climatic variations are extreme—greater than in any other province of the Dominion. Every variety in the following list is desirable for some localities, but may be quite unsuited to others.

Winter Wheat.—Dawson's Golden Chaff, Egyptian Amber, Kharkov, Turkey Red.

Spring Wheat.—Early Red Fife Ottawa 16, Huron Ottawa 3, Marquis Ottawa 15, Red Fife Ottawa 17, Ruby Ottawa 623, (Kubanka Ottawa 37, Prelude Ottawa 135).

Oats.—Alaska (very early), Banner Ottawa 49, Gold Rain, Victory, (Liberty Ottawa 480, hullless).

Barley.—Charlottetown No. 80, Chinese Ottawa 60, O.A.C. No. 21, (Albert Ottawa 54, very early, Himalayan Ottawa 59, hullless).

Field Peas.—Arthur Ottawa 18, Golden Vine, Mackay Ottawa 25, Prussian Blue, Solo.

Field Beans.—Navy Ottawa 711, Norwegian Ottawa 710, White Pea, Yellow Six Weeks.

Buckwheat.—Rye, Silverhull.

Flax for Fibre.—Longstem Ottawa 52, (Kostroma).